THE LOS LUNAS PLANT MATERIALS CENTER PARTNERS WITH NEW MEXICO SOIL AND WATER CONSERVATION DISTRICTS TO RESTORE RIPARIAN AREAS IN THE SOUTHWESTERN UNITED STATES

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ABSTRACT

The New Mexico Soil and Water Conservation Districts are involved in controlling exotic species, such as salt cedar, Siberian Elm, and Russian olive. Their goal is to restore thousands of acres of riparian areas to their historical condition and to provide more water for agricultural purposes. Since 1983, the Los Lunas Plant Materials Center (LLPMC) has been engaged in developing plant materials and methodologies for riparian restoration in the Southwest where the annual precipitation can be less than 10 inches. The LLPMC distributes local ecotypes of native grasses, shrubs, and trees to Soil and Water Conservation Districts and various land management agencies for the restoration of disturbed riparian areas at elevations from 100 to 3000 m.

The LLPMC has established plantations of native collections of cottonwoods, willows, and various understory shrub species. Thousands of stem cuttings from these plantations are harvested annually for distribution. Stem cuttings are planted to the depth of the water table and quickly establish root systems that absorb water from the capillary moisture zone above the water table. Other tree shrub species that cannot produce a root system from a stem cutting are grown as long-stem transplants in containers that are 35 to 75 centimeters long. These plants are deep-planted into the capillary water zone of the shallow water table of these riparian systems to limit or exclude follow-up irrigation. A number of montane willow species are being propagated from seed to ensure genetic and sexual diversity. The LLPMC makes seed from 20 native grass species (many of which are common to riparian areas) available to the general public through the commercial seed industry.

The Soil and Water Conservation Districts have begun their restoration endeavor using LLPMC plant materials and planting methodologies. Before and after photographs of plantings will be included in the presentation.